In the Claims:

Please amend claims 2, 12, 15, renumbered claims 23-41 and 43 as follows:

A12

2. (Amended) The medium of claim 1 wherein elements forming both the negative permittivity composite medium and the negative permeability composite medium are superconducting.

A13

12. (Amended) The medium of claim 11, wherein the medium transmits a selected band of frequencies at one value of modulable permittivity, and transmits another selected band of frequencies at another value of modulable permittivity.

A14

15. (Amended) The medium of claim of 14, wherein the medium transmits a selected band of frequencies at one value of modulable permeability, and transmits another selected band of frequencies at another value of modulable permeability.

A15 cont'd

23. (Renumbered) (Amended) A left handed composite medium having a frequency band in which both effective permeability and effective permittivity are negative simultaneously, the left handed composite medium comprising:

a supporting substrate;

an array of elements each of which contributes with other elements of said array to define negative permeability composite medium having a negative permeability over a band of frequencies in said frequency band; and

an array of elements arranged, with said negative permittivity composite medium by said substrate, each of said elements contributing with other elements of said array to define an composite medium having a negative permittivity composite medium, the combination of said negative permeability composite medium and said negative permittivity composite medium defining a composite effective medium having a negative permittivity and a negative permeability over at least one common band of frequencies.

A15 cont'd

24. (Renumbered) (Amended) The left handed medium of claim 23, wherein said negative permeability composite medium comprises arrays of solenoidal resonator conductive elements.

25. (Renumbered) (Amended) The left handed medium of claim 23, wherein said negative permeability composite medium comprises arrays of split ring resonator conductive elements.

26. (Renumbered) (Amended) The left handed composite medium of claim 25, wherein each said split ring conductive element comprises a split rectangular conducting resonator.

27. (Renumbered) (Amended) The left handed medium of claim 23, wherein said negative permeability composite medium comprises arrays of "G" conductive elements.

a15 cont'd

28. (Renumbered) (Amended) The left handed medium of claim 23, wherein said negative permeability composite medium comprises arrays of Swiss roll resonator conductive elements.

29. (Renumbered) (Amended) The left handed medium of claim 23, wherein said negative permeability composite medium comprises arrays of spiral resonator conductive elements.

30. (Renumbered) (Amended) The left handed medium of claim 23, wherein each said negative permittivity composite medium comprises a low resistance conducting path arranged adjacent to a corresponding solenoidal resonator conductive element and perpendicular to the axis of the corresponding solenoidal resonator conductive element.

31. (Renumbered) (Amended) The left handed medium of claim 23, wherein each said negative permittivity composite medium comprises a conducting wire arranged adjacent to a corresponding solenoidal resonator conductive element and perpendicular to the axis of the corresponding solenoidal resonator conductive element.

32. (Renumbered) (Amended) The left handed medium of claim 23, wherein each said negative permittivity composite medium comprises a conducting path defined by a confined plasma arranged adjacent to a corresponding solenoidal resonator conductive element and perpendicular to the axis of the corresponding solenoidal resonator conductive element.

a15 cont'd

33. (Renumbered) (Amended) The left-handed composite medium of claim 23, wherein each said negative permittivity composite medium comprises a conducting path defined by a confined plasma arranged adjacent to a corresponding solenoidal resonator conductive element.

34. (Renumbered) (Amended) The left handed composite medium of claim 23, wherein said substrate comprises a piezoelectric medium.

35. (Renumbered) (Amended) The left handed composite medium of claim 23, wherein said substrate comprises magnetostrictive medium.

36. (Renumbered) (Amended) The left handed composite medium of claim 23, further comprising a scattering defect within the composite left-handed medium.

A15 cont'd

37. (Renumbered) (Amended) A left handed composite medium having a frequency band in which both effective permeability and effective permittivity are negative simultaneously, the left handed composite medium comprising:

a plurality of adjacent units;

one or more split conductive element resonators disposed in each of said plurality of adjacent units, said split conductive element resonators defined by two concentric conductive elements of thin metal sheets with a gap between the two concentric conductive elements and a break in continuity of each of said two conductive elements; and

one or more conducting wires disposed in each of said plurality of adjacent units, each wire parallel to a plane of each of said split conductive element resonators disposed in each of said plurality of adjacent units; wherein

said split conductive element resonators and said conducting wires having a common frequency band over which there is simultaneous negative effective permeability and permittivity.

38. (Renumbered) (Amended) The left handed medium of claim 37, wherein said concentric conductive elements comprise concentric split rectangular elements.

a15 end

39. (Renumbered) (Amended) The left handed medium according to claim 37, wherein said concentric conductive elements comprise concentric split rings.

40. (Renumbered) (Amended) The left handed medium according to claim 37, wherein each of said units not on an outer edge of said medium includes two sections of orthogonal substrate, each of said two sections including one of said concentric conductive elements on a surface thereof, and each having an associated conducting wire.

41. (Renumbered) (Amended) The left handed medium according to claim 40, wherein multiple concentric conductive elements are linearly arranged in series on each of said two sections of each of said units not on an outer edge of said medium.

A16

43. (Renumbered) (Amended) The medium of claim 42, wherein means are introduced that permit the adiabatic absorption along any direction of propagation within said medium.